

flowmeter

Christmas Edition

2020

Compiled and designed by Brand and Marketing Department



Improving Quality of Life and Enhancing Sustainable Economic Development.

Think Water,
think Umgeni Water.





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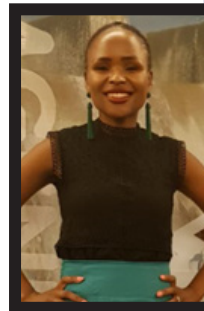
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Time to unwind and create cheer, but let's not forget the lessons we've learnt about how to keep the coronavirus in check.

CHRISTMAS MESSAGE FROM THE ACTING CHIEF EXECUTIVE



Sanibonani. Molweni. Dumelang. EmaKhosini siyakhuleka. Greetings to all colleagues.

Time certainly marches on; we are already at the end of the year and it feels as if it was not long ago that we exchanged pleasantries during the festive season of 2019. For me, this is a special occasion, one in which I am sharing seasonal greetings for the first time in my capacity as the Acting Chief Executive and in a year that was out of the ordinary.

The transition from the previous leadership to the present has been seamless. Thank you, all colleagues at Umgeni Water (UW)

for ensuring that there was no disruption in delivering on our core mandate.

Admirably, you stayed focused and ignored the noises carried in the media about the changes in the governance structures of UW and you remained pragmatic as the coronavirus swept through our country. Your commitment is appreciated and your efforts do not go unnoticed.

Yes, indeed the festive season has arrived. It is time to take a break and spend happy moments with those near and dear

to you. I would like to wish you and your loved ones the very best for the festive season and holidays; a Merry Christmas and prosperous and peaceful 2021. May all of your prayers, wishes, aspirations and ambitions be fulfilled as we march collectively into the new year and navigate a future that holds challenges but also much promise. The Umgeni Water family is persevering and resilient, and I am certain that the challenges that may appear will be confronted with fortitude and strength, enabling us to manage them effectively.

As we begin to unwind and relax, let us recollect the past holidays and happy times that are likely to return. I remember with fondness the feeling of peace and camaraderie that the festive season and Christmas has brought in the past. It was then – and still is now – a time of togetherness and rekindling of the spiritual flame that allows us to maintain a correct balance in our lives.

It is also a time to reconnect with the true spirit of Christmas. The universal message of Christmas – caring, sharing,



good neighbourliness and tolerance – could not have found more relevance than the present as the world lurches from one crisis to another. Today, governments universally, wait with bated breaths as virologists make progress towards developing an effective vaccine to avert the coronavirus. We remain hopeful that when the vaccine becomes available, it will be affordable to the African continent.

At this time of the year, the temptation to party in groups is great, however, please remember that the coronavirus pandemic is still wreaking havoc in many parts of the world, including South Africa. If you will be attending or hosting any event – party, traditional and religious ceremonies – please, ensure that all COVID-19 hygiene protocols are adhered to. Comply with the mandatory physical distancing, wear a face mask and sanitise your hands always. In the absence of medical intervention, such as a vaccine, practising these protocols is the most effective way of keeping the virus at bay.

A year-end message is never complete without reflecting on where we've come from, where we are presently and where we are headed. This will help us focus on what has been achieved and what still needs to be done in order to successfully meet our commitments in the year ahead.

The financial year 2019/20 produced some marvellous results in core areas of our business. Financial performance was positive again as an outcome, meaning that the trend of achieving surpluses continued unabated. Potable water quality was again largely excellent in terms of

the benchmarks of the South African National Standards 241: 2015. Water services provision was in line with targets that have been set. This meant our customers did not have to experience the inconvenience of prolonged supply failures. Our customers and other stakeholders were satisfied with the frequency of engagements and the transparent manner in which information continued to be shared with them.

These accomplishments were realised as a result of your hard work and commitment to ensuring that our organisation remains a State-owned entity that is worth emulating – thank you. These positive outcomes become more laudable when it is acknowledged that they were produced in a public health emergency environment created by the outbreak of the coronavirus epidemic in South Africa.


Despite the onslaught of the virus, we had to ensure that business operations were not affected adversely. This was achieved through the implementation of various virus-deflection measures that were necessary to protect the health of employees and keep COVID-19 away from our plants, sites and offices. We have been fortunate that the rate of infection at Umgeni Water has been minimal and

the recovery from the coronavirus and associated COVID-19 is a satisfactory .

An unfortunate and unavoidable consequence of the coronavirus has been time lost on construction and planning of some infrastructure projects owing to lockdown restrictions that caused construction companies to suspend business activities for a minimum of eight weeks. The decision of at least two construction companies that were implementing Umgeni Water projects to apply for business rescue exacerbated the situation. We hope to catch up on the lost time.

Unquestionably, 2020 was the year of change in many ways, the Coronavirus changed the way Umgeni Water and many other companies do business. Old and tired practices have become redundant and a refreshing new way that is premised on technology is fast becoming the new norm.

The world was already changing before the diagnosis of the novel coronavirus but the virus accelerated that change, particularly for our country. Some of these changes have brought



much amusement to some of us during meetings. We sit back and reflect on some of the quotes that came with the unprecedented changes in 2020: “We can’t see you. Please, switch on your video.”, “Please, unmute yourself.”, “Somebody is eating, please switch off your mic.”, and “Nothing from my side, I’m covered.”

In response to the shifts brought about by the pandemic, the strategies of Umgeni Water are accordingly being fine-tuned to enhance product delivery and business growth, and encourage a closer look at priorities in respect of roll-out of projects. This has had a positive effect on closer divisional collaboration and refining of synergies.

It is my greatest wish that in the new year all of us will collectively continue to remain focused on serving the best interests of our customers and other stakeholders so that the expectations of their constituencies will become easier to fulfill.

The local government elections are scheduled to take place in 2021 and already pressure is mounting on Umgeni Water to accelerate

completion of some projects and assist with resolving delivery challenges that are being experienced by some municipalities.

the financial impact of 0% tariff increase, including reprioritisation of expenditure in certain areas. We all have a role to play in cost containment.

We will be entering the new year against the backdrop of some interesting and exciting challenges and with carry-over of two significant developments from 2020. These developments are the increasing debt of some municipalities that have been struggling to pay for potable water and allied services provided and the negative financial impact of the Ministerial decision following the disapproval of tariff increase for 2020/21. This means that there will be no increase on the previous year’s tariff. The Executive team is doing everything possible to manage

As we prepare to take a break from our daily commitments and relax with family and friends, it will become important to savour it. You’ve earned this break. Let us be grateful for the blessing of life, when so many lost their lives to the pandemic and for all personal achievements during this challenging year. Masibonge, sigide, sijabule nemindeni yethu, sibonge uMvelinqangi, amathongo nezingelosi zethu ngokusilondoloza.

If you will be driving to far-off destinations, please drive carefully and be safe on the roads. I know that when you

return to work, we will collectively put our shoulders to the wheel and continue to move forward. We look forward to greater achievements in 2021.

Let the magic of Christmas and the season bring love and peace to you, your loved ones and to the world.

Abanye bethu besazoyokhothwa
yizidalwa emakhaya, ngithi nje
makwande, kukhanye kube kuhle kube
mhlophe njengezihlabathi zolwandle.
Nibusiseke njalo.

Mrs Nomalungelo Mkhize





MINISTER LINDIWE SISULU HANDS OVER UMSHWATHI BULK WATER SUPPLY SCHEME

The Minister of Human Settlements, Water and Sanitation, Ms Lindiwe Sisulu, officially handed over the uMshwathi Bulk Water Supply Scheme at an event held at eMpolweni Hall, just outside Pietermaritzburg on 22 November 2020.

This scheme, which was implemented by Umgeni Water, jointly funded by the Department of Human Settlements, Water and Sanitation, through Water Services Infrastructure Grant (WSIG) and the Department of Co-operative Governance and Traditional Affairs (Cogta)

through the Municipal Infrastructure Grant (MIG) implemented over a three-year period, is aimed at bringing relief to water-stressed areas in the uMshwathi Local Municipality. It will bring relief to more than 3 000 households in Albert Falls, Mpolweni, Trustfeed and Nadi, among others.

The Minister was accompanied by Deputy Minister Mahlobo, MEC Hlomuka, KZN Premier Sihle Zikalala, the Board and Executive members of Umgeni Water, senior officials from the KwaZulu-Natal provincial



government, uMgungundlovu District and the uMshwathi Local Municipalities, together with several other leaders in the province.

Speaking at the event, Minister Sisulu said: "I have noted with interest that 30% of all projects executed and under way have been allocated to emerging contractors. It is my wish that we increase this allocation to 40% to ensure that women and youth are at the centre of economic empowerment."

In an effort to ensure there is water security for eThekweni, iLembe, uMgungundlovu and uMsunduzi Municipalities by 2030, the Department of Water and Sanitation has issued a directive to Trans-Caledon Tunnel Authority (TCTA) and Umgeni Water to fund and implement the Umkhomazi Water Project.

"I am told that at this stage no Municipal Councils have resolved to sign water-user agreements. This is something my office will ensure that the affected Water Service Authorities (WSAs) sign these water user agreements before the end of 2020 so that the project can commence," the Minister said.

Other directives that have been issued to Umgeni Water is to fund and implement the Stephen Dlamini Project in Harry Gwala District.

This project is expected to be completed by 2023 and will benefit more than 113 000 people living in the area.



ACTING CHIEF EXECUTIVE DELIVERS A MESSAGE OF SUPPORT FOR THE MEN'S VIRTUAL ROUND-TABLE TALK – ESIBAYENI

Does anyone remember Gillette advert, before us ladies had our Gillette as well: “The Best Men Can Get”?

Defining masculinity as we best knew it. Then the campaign of the same razor blade brand: “We believe: The Best Men Can Be”. Now, this advert takes you through exactly what we are hoping for as a society in changing the gender stereotypes, so that we have the best men, the best leaders, the best brothers and the best husbands.

If you have not seen this advert, Google it. It may create some shock waves, as it did when it was launched. Just watch till the end, ponder on it and reflect.



There has been a lot of warranted focus on women and breaking the gender stereotypes impacting on women and girls the world over. We are finding that we are seemingly paying less attention now to the issues of men and boys. There are traditional stereotypes, though the world has changed, that still exist and are entrenched, and more so in some races when it comes to boys and men. At

times they create unsolicited burden to conform, fit in, which may have a severely negative impact on the individual (behavioural, health, etc) and society at large.

As an organisation, we are fully supportive of the initiative, 'Esibayeni'. I, for one, being a mother to a son, a growing young man, am pleased

with such initiatives where we also pay attention to growing boys, young men and future fathers, husbands and leaders in our communities.

I do hope that it is the first of many engagements on topics that affect men for the betterment of society and citizens around the globe. Let us take the positive contribution from today's session forward by continuing the conversations with our friends,

families and peers even outside of Umgeni Water, and be part of the solution and the change we yearn for.

I wish you a fruitful engagement and hope that next time I can be part of these very important conversations that impact on us wherever we are – in our homes, in our workplace and communities.

Thank you to our guests and facilitators that have joined today.



CHRISTMAS MESSAGE FROM THE EXECUTIVE OF SCIENTIFIC SERVICES



This year has been unprecedented, scary and daunting, and yet probably the most fascinating in the history of Umgeni Water. Each of us navigated the year differently as individuals and with our families, yet we never failed to rally as a team and pull out all the stops to ensure that there was delivery for Umgeni Water.

I want to especially salute Scientific Services staff and management for the agile, resilient, proactive and selfless manner in which you responded to serve the organisation in the past year. A large part of

Scientific Services continued to work at the coalface to implement the monitoring programme and undertake laboratory analysis.

Others courageously supported the Operation's teams, while the rest persevered behind the scenes, filling delivery gaps and continuously putting forward ideas so that we all could work in a safe yet effective environment. The result was Umgeni Water continuing to deliver much-needed safe drinking water to customers and all of you played a remarkable role in this.

It goes without saying that many positives, and new ways of thinking and working have emerged from what started as a great unknown and potential catastrophe. The fact that the organisation has also emerged with minimal pummelling is testament to the maturity of Umgeni Water, underpinned by the maturity of its employees. I deeply thank Scientific Services employees and the partners you work collaboratively with for your contributions.

It is time now to take a break and recharge our batteries. In a couple of weeks many will be taking much-needed leave and will get downtime

to reflect on the year that was, while contemplating the year ahead. Those who continue to hold the fort to ensure business continuity over this period are once again appreciated. Notwithstanding this, every one of you please take some time out to enjoy family and fun time as the year draws to a close. Wherever you are or wherever you go, be safe, remain proud ambassadors of Umgeni Water and uphold the brand and return to an even greater organisation in 2021.

I look forward to tapping into those growth mindsets when we begin the new year and review how Scientific Services, its departments and employees will continue to add value to keep Umgeni Water great.

Mrs Manu Pillay



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TEAM SPIRIT IN OUR TECHNICAL ENVIRONMENT

The Process Services Department actually comprises of a dynamic group of individuals, each with a unique set of strengths and weaknesses. For some of us, our passion lies in troubleshooting, others in design, and yet others in exploring innovation. We have some who love the laboratory, some who thrive in the more practical aspects of engineering and yet others who lean more towards the academia.

Given the diverse nature of the work our department undertakes, there is plenty of interesting ways for all of us to use our different but complementary skills to contribute to achieving the goals of Umgeni Water. One of the main ingredients for the success of our department is great teamwork.

In March this year, the agility of our entire organisation to respond to the coronavirus pandemic was put to the test. At Process Services, the approach we adopted at the onset, even prior to the commencement of the official lockdown, was collective brainstorming. A team of senior engineers with our Manager sat together to review the risks and plan our response as a department.

It was an opportunity for everyone to provide their opinions and allowed the challenging situation to be tackled faster by drawing on everyone's expertise. We decided to commence working remotely immediately, to protect our staff and to ensure that we were available to serve as a back-up for the Operations Division (yes, we can wear different hats). This

gave us a head start in finding ways to work around some of the challenges associated with working remotely.

Fortunately, the Operations Division did a fantastic job (well done to you!) of managing the risk of a coronavirus outbreak at any of their sites, and so our teams were not called to action.

We also extended our collaborative efforts to the Laboratory Services Department and the King Cetshwayo DM (KCDM) during the lockdown. Upon activation of the Scientific Services Business Continuity Plan, the Process Laboratory at Darvill was set up promptly so that Laboratory Services could continue with the required water quality testing. In KCDM, one of the engineers and

two technicians from Process Services worked collaboratively with Operations to conduct detailed due diligence studies and to prepare an Operating and Maintenance proposal. They are currently operating the treatment plants there and Process Services have taken a leadership role in project managing this transition.

It is not only during this pandemic, but also in general that you will commonly find teams of Process engineers and technicians working closely with other departments. Some of the major functions we perform include resolving water quality results that are flagged by the Operations Division, identifying risks at treatment plants by conducting annual process audits, technically evaluating innovative technologies for implementation at Umgeni Water and also contributing actively to small as well as large infrastructure projects.

With the regular use of technology as we worked remotely during the lockdown, inter-disciplinary Hazard and Operability



(HAZOP) Studies over online platforms, such as Skype, are now no longer strange to us.

Our internal peer review process is yet another example of us working together to provide quality services to other departments. Not only is this peer review process a check on the quality of the final output to our customers, but it also serves as a platform to share knowledge and support one another by drawing on the peer reviewers' skills and experience. The peer reviewer is required to learn from the review process as well, so, in the end everyone wins.

At the centre of the hub is our team leader (Peter Thompson), who generously supports our growth and development to enable us to excel in our roles and responsibilities. He fosters collaboration not only within our own department, but also inter-departmentally and more broadly with universities and municipalities who call on us for advice or to engage in partnerships. This culture of broad-mindedness in working together and sharing of knowledge is as a result, evident in all of us at Process Services.

It is a myth to think that success is the effort of just a single person or department – Process Services both contributes to and benefits from other departments in our organisation. Within our department everyone has a part to play towards its overall success, and we have come far over the years in endeavouring to dovetail our myriad talents, skills and experiences in the services we offer the organisation.

By Sachitha Korlam





PROCESS SERVICES ENGINEERS CONTINUE TO GROW DURING THE PANDEMIC

“Life doesn’t get easier or more forgiving; we get stronger and more resilient.” – Dr Steve Maraboli.

Never has this been more true than in 2020. This year has been tough on the whole world, due to the COVID-19 pandemic. It has disrupted our lives in a way that has trapped us in anxiety, fear and isolation. As the human race, we have had to make a concerted effort to concentrate on positivity, spiritual wellness and personal growth.

Umgeni Water’s 2050 strategy recognises the need to invest in human capital development, by building a capable workforce that is agile and responsive to the organisational strategy. Within Process Services, three people have managed to align with this strategy in spite of these trying times. Nkanyiso Shabalala completed his Chemical Engineering Degree at the University of KwaZulu-Natal, after which he joined Umgeni Water as a graduate trainee. He completed the three-year

training programme with Process Services and has accepted a position as a senior technician.

He was recently selected as one of 10 candidates nationwide to participate in the Water Technologies Demonstration (WADER) Young Engineer Changemaker Programme (YECP). The programme focuses on selecting young South African engineers to be part of a 1-year training programme that will enable them to gain the necessary skills to drive municipalities of the future.

The Department of Science and Technology (DST), in collaboration with the Water Research Commission (WRC), has established WADER to pull together the applied research and development and pre-commercialisation stages of the water innovation continuum.

Acting as an innovation intermediary, the Programme’s mission is to facilitate high-level, collaborative technology demonstrators from the public and private sectors to maximise the potential of the water-innovation value chain and contribute towards achieving technology deployment aspirations of the National Water Research, Development and Innovation Roadmap.

The programme will enable young engineers to participate in testing potential innovative water and sanitation solutions in real world sites and gain the necessary skills required to drive municipalities of the future that build sustainable, live able and socio-technical infrastructure and services.

The programme consists of five phases: Engineer’s boot camp, Masterclass,

local site visits, International Exchange and Feedback, and Review.

Only four of the ten YECP candidates were chosen to participate in the international exchange phase. This is based on active participation in the programme, innovative thinking, teamwork and performance in the group tasks.

Process Services is proud to say that Shabalala has been selected as one of the four YECP candidates to participate in the international exchange phase of the programme.

Shabalala says of his achievement: “When I received the news of my selection as one of the best 10 YECP candidates across the country, I was honoured, proud and grateful. The programme was very competitive. This proves that with hard

work, commitment and the willingness to improve and learn, you can reap great rewards. I am thankful to my manager, Peter Thompson and Umgeni Water for allowing me to participate in the WADER Programme.

I will forever be driven to acquire knowledge and skills to benefit me and to make a difference to Umgeni Water and society.”



Nkanyiso Shabalala

Velile Chili, a senior technician within Process Services, obtained her Bachelor of Technology in Chemical Engineering from the Durban University of Technology in May 2020.

She completed her studies with the help of Umgeni Water’s Educational Assistance Programme.

About her new qualification Chili said: “I would like to express my sincere gratitude to the organisation, Umgeni Water, for the financial support throughout the two years of my studies. This has contributed

so much to my personal and intellectual growth in many (respects) and it has equipped me with the right skills to execute my duties. I believe (it) will be helpful in the growth of the organisation and my experience.”

As someone who is always looking for a challenge, Velile is planning to complete her Master’s Degree over the next two years.

Internal mentorship programme has been implemented to ensure the development of human capital, by developing young professionals in their respective fields. Chili is a Process Services success story as she has also achieved her Engineering Council of South Africa (ECSA) Professional Registration in August, and is now a professional engineering technologist. She would like to thank Peter Thompson, the departmental manager for encouraging(/ facilitating) her to register (her registration).

On how she felt, she said: “To my mentor and colleagues, I cannot thank you



Velile Chili

enough for being such a wonderful team to me over the past years. I want you to know how much that has meant to me. Your guidance and support have been instrumental in helping me achieve so much personal and professional growth during that time. This has brightened my professional career and your generosity will forever remain in my heart.”



Limakatso Thokalekoala

Continuing the drive for the empowerment of women engineers, another engineer the department is proud to have worked with is Limakatso Thokalekoala. She joined Process Services in 2015 as a graduate trainee and is now a process engineer in the department.

Thokalekoala has successfully submitted her application for Professional Registration with the Engineering Council of South Africa. “I am grateful for all the

development opportunities offered by Umgeni Water and the support within my department and look forward to my further professional growth and development,” she said.

In addition to her ECSA registration, Thokalekoala was elected to the committee of the Umgeni Water Young Water Professionals Forum as the Secretary-General.

Joel Osteen said: “Don’t let circumstances pull you down. No matter what comes your way, get over it and keep moving forward.”

These young Umgeni Water employees are an example of what can be accomplished through hard work and dedication. After all we have experienced this year, let us focus on the positives and move forward to achieve great things.

By Nkanyiso, Velile & Limakatso



INFRASTRUCTURE DEVELOPMENT



CHRISTMAS MESSAGE FROM EXECUTIVE OF INFRASTRUCTURE DEVELOPMENT



The year 2020 has been very challenging. However, there are positive signs that we are winning the war against the COVID-19 pandemic. I would like to commend the Umgeni Water family for coming up and complying with comprehensive plans in line with the South African Government COVID-19 Regulations to prevent the spread of the virus while ensuring that the bulk water and sanitation service

is provided to the Umgeni Water supply areas and beyond. Well done to you all. Our families and close friends have been affected negatively by this, resulting in some close friends and family members losing jobs,. It is for this reason that I take this opportunity to offer my sincerest condolences to those who have experienced the loss of loved ones. It is at these times when we really need to support one another.

The construction industry has been hit hard; likewise, other businesses. Health and Safety measures had to be strengthened to protect the workers and prevent the spread. This, however, came at additional costs to the existing contracts and with some delays.

We need to celebrate responsibly that we have made it this far and continue to comply with COVID-19 Regulations.

The number of infections is rising again, but working together we can prevent the spread of the coronavirus.

With those few words, I would like to take this opportunity to wish you all a peaceful holiday and a wonderful new year.

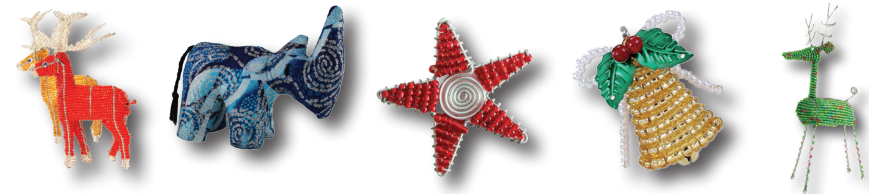
Enjoy the festive season responsibly.

Mr Sibusiso Mjwara

CORPORATE SERVICES



CHRISTMAS MESSAGE FROM THE EXECUTIVE OF CORPORATE SERVICES



I would like to thank all Corporate Services employees who worked tirelessly during the lockdown to ensure that business continued without any disruptions. Your hard work did not go unnoticed. The nature of our work is that of an enabler to the other Divisions.

Therefore, if other Divisions did not find difficulty in getting services from Corporate Services, then we should get satisfied that we have done our work satisfactorily. Of course, there is always room for improvement.

I wish that this break provides you with an opportunity to reboot and energise yourselves to come back to serve other Divisions with continued purpose.

Be safe on the road for those who will be travelling and use your time wisely.

Remember to practise social distancing, wash and sanitise your hands regularly, and avoid crowded places. The coronavirus is still among us.

Dr Siphon Manana



UMGENI WATER (MEN'S VIRTUAL ROUND-TABLE TALK – ESIBAYENI)

Umgeni Water celebrated International Men's Day on 23 November 2020 observing the international theme "Making a positive difference to the well-being and lives of men and boys".

The aim of this celebration titled "Esibayeni" focused on discussing the shift of social norms that change behaviour in the long run and to break gender stereotypes that might prevent men from reaching their full potential.

Esibayeni was honoured to have speakers Zakhele Dube, Thulasizwe Shangase and Peter Thompson, who gave talks on

various topics such as:

- Gender roles and responsibilities (societal responsibilities and expectations);
- Gender equity;
- What freedom means to the male;
- Maintenance & the Law;
- Estate claims – The importance of drafting a will and provident fund issues (nominations and beneficiaries, legal guardian).

Furthermore, issues that men face in the community were discussed and that segment was chaired by Felix Hlophe. The discussion revolved around unpacking the unspoken issues faced by men.

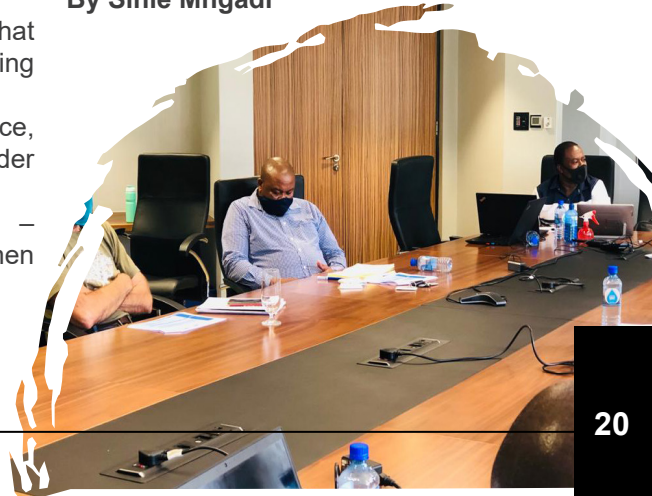
Some of them included discussion around:

- Gender-Based Violence (GBV) against women and men – Men are also victims of GBV, but these cases mostly go unreported;
- Balanced empowerment in the workplace and its challenges;
- Polygamy (Isithembu) – Is it good or bad?;
- Social media pressure – What challenges do men face regarding social media?;
- Gender biases – In the workplace, what are the issues regarding gender bias?;
- Discussing resilience patterns – What is resilience and how can men

develop resilience after stressful events?;

- Lesbian Gays Bisexual Transgender Queer Intersex (LGBTQI) – What is LGBTQI and what are the issues facing this community in the workplace?

By Sihle Mngadi





CONTINUOUS LEADERSHIP DEVELOPMENT REMAINS AT THE HEART OF UMGENI WATER

Successful leadership requires more than the assigning of tasks to teams, but calls for a leader who understands the operational context and has the ability to inspire teams to achieve their full potential and organisational objectives.

As part of the continued endeavours to strengthen organisational capacity, Umgeni Water, in partnership with the University of KwaZulu-Natal (UKZN), offered a six-months Management Development Programme (Higher Education Qualification Sub-Framework Level 7) to a diverse group of 25 delegates. Aligned with the Umgeni Water's

Growth Strategy Vision 2050, the intense programme was geared to equip delegates with leadership competencies necessary to support the achievement of organisational strategic vision, promote business sustainability and lead the organisation into the future.

The programme design involved a systematic integrated approach addressing the entity's specific focus areas, which led to the identification and customisation of the following modules:

- Management and Leadership;
- Human Resources Management;

- Strategic Management;
- Operations Management;
- Supply Chain Management,
- Project Management;
- Financial Management and Accounting;
- Technology, Business Innovation and Entrepreneurship.

The rigorous programme required delegates to attend lectures, some of which were presented by Umgeni Water Executives, and a series of assessments that will culminate in a prestigious graduation ceremony on 3 December 2020 at Inkosi Albert Luthuli International

Convention Centre.

The ceremony was graced by members of the Board, Executive, Management and organised labour.

Mr Magasela Mzobe, the Chairperson of Umgeni Water Board, applauded the recognition of the importance of leadership capacity development and investing in it. The Acting Chief Executive Mrs Nomalungelo Mkhize congratulated all delegates and emphasised that on what leadership means for Umgeni Water, the importance of leadership capacity development, the required competencies and traits to lead the realisation of Umgeni



Water Vision 2050. Mr. Ngubo, the Chairperson of Umgeni Water Board Remuneration Committee, applauded the entity for recognising the importance of leadership capacity development and investing in employees.

The Human Resources Department is conducting an impact assessment of all leadership development programmes for continuous improvement and alignment, and we spoke to two of employees who have undergone the assessment and this is what they had to say:

How has the Management Development Programme (MDP) changed your life?

“To say that this programme is beneficial to individuals aspiring to lead Umgeni Water is an understatement. I believe that all individuals aspiring to lead and manage should undertake this programme not just for professional gain but person development as well.

The programme is designed to provide a student with personal and professional tools to strengthen their effectiveness as a manager and leader. I greatly appreciated the professional aspect of the programme as it covered a wide range of topics, which were taught by outstanding lecturers.”

By Thobekile Gambu

What have you benefited from the MDP?

“The benefits of this course are many. Not only have I personally benefitted in terms of career advancement, skill development and opportunity to grow as an individual, but Umgeni Water also benefits as I’m now well equipped to take the organisation forward.

The MDP exposed me to a diverse set of management ideas that broadened my horizons and allowed me to think, ask questions, reflect and analyse critically. The course has also ignited the passion for me to study further, as there is a lot to learn and also to keep abreast with latest developments and technology.

How will it help me in the future?

“The programme is designed to empower and equip staff in middle management with tailor-made and relevant skill sets to be able to lead or take up senior positions in the organisation one day. The course has better equipped me to lead with confidence should I get a chance to lead in the future, be it at Umgeni Water or outside.”

By Ntuthuko Ngcamu

By Zakhele Dube





WATER EDUCATION, IN THE TIME OF COVID-19 LOCKDOWN

The lockdown and restrictions brought about by the COVID-19 pandemic that has plagued the world over the past few months, did not hamper the dedication and passion of the Brand and Marketing team to continue spreading environmental awareness to schools and communities.

The team used this time to reach out to the internal staff, as well as the community through social media, radio and digital platforms to encourage communities, and share information about how to take care of the environment and ourselves during these strange and difficult times while also preserving water.

The messages focused on aspects of water conservation, handwashing, sustainable living, gardening, protection of biodiversity and how we can get in touch with nature, despite being indoors.

Keeping it Green

Greening initiatives including tree-planting activities at adopted schools and Umgeni Water sites. Close to 90 trees were planted. Vegetable seeds were also distributed to adopted schools to either establish new gardens or enable existing gardens to flourish.



Springgrove Waterworks

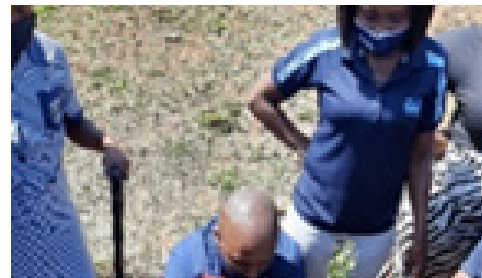
School Gardens



Sigedleni Primary



Ewubini Primary



Trustfeed Primary



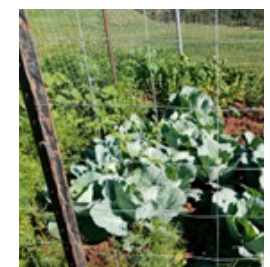
Cottonlands Primary



Oakford Primary



Nkolovuzane Primary



Bathengi Primary



Nonzila Primary

Time to Clean Up

The principles of Environmental Education are centred on collaboration and action learning. With this in mind, the education specialists partnered with various government and local government departments, as well as other environmental stakeholders to encourage communities and schools to keep their space clean and take action to stop illegal dumping.



Bathengi Primary



Trustfeeds Primary



Laboure Primary



Richmond



Mehlomnyama



Camperdown



Impendle



Impendle



Mzinyathi



Phungashe



Mooi River



Inanda Dam



Albert Falls Primary

Spread the Word

The education specialists are constantly exploring avenues to spread the word on the importance of water conservation and the impact of improper waste management on water sources and water quality.

This is achieved through workshops with community groups, door-to-door visits, as well as information sharing at taxi ranks, shopping centres and malls.



A Community march for the environment in Richmond



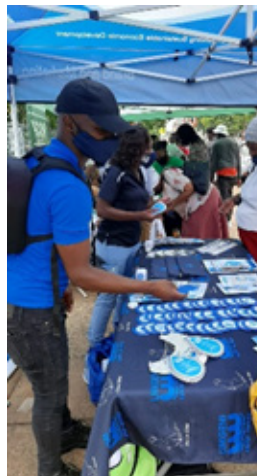
Siyathuthuka, Richmond



Mkhambathini



Mehlomnyama



Pietermaritzburg



Mkhambathini

Door-to-door Awareness



Turton (Umzumbe)



Impendle



Dunbar Centre (Cato Ridge)



Boxer at Phungashe (Umzumbe)



Inkosi Bhekizwe Shopping Centre (Turton area in Umzumbe)



#CleanAndGreen
#StopTheSpread
#SpreadTheWord

TOGETHER WE CAN MAKE A DIFFERENCE!

By The Water Education specialists



WELCOMING KING CETSHWAYO DISTRICT MUNICIPALITY (KCDM) TEAM TO UMGENI WATER INDUCTION PROGRAMME 2020/21

Umgeni Water Station, Middledrif WTP, hosted an Induction Programme on 9 to 10 November 2020 at Aloe Lifestyle in Eshowe, which was exclusively for KCDM employees who joined Umgeni Water in July 2020.

This event followed the consultation and on-boarding process that began in July to September 2020.

There are about 80 employees who are based in the following plants: Nkandla WTP, Ophindweni Package Plant, Kwabadala Package Plant, Khombe Package Plant, Mvutshini Package Plant, Umfongosi (Intaka) Package Plant, Dolwane Spring Pump

Pikiliyeza Package Plant, Qhudeni Package Plant, Uthukela Package Plant, Vuma Package Plant, Bangindoda Package Plant, Obanjeni Package Plant, Donsintaba Package Plant, Ofasimba Plant, Catherine Booth Package Plant, Mbongolwane Package Plant, Eshowe Waterwork, Gingindlovu Water Work (WW), Great Mthonjaneni WW, Ekuphumuleni, Mthunzini, Melmoth Package Plant and KwaMagwaza Plant Package.

The programme included presentations from various departments that covered the KCDM project plan, HR policies, safety induction, as

well as union presentation. Hlwayelani Buthelezi directed the programme on both days.

Sanele Mazibuko, the KCDM Project Manager, welcomed the new recruits, further assuring them that they have made a good decision to join the Umgeni Water family.

He presented the project overview, Umgeni Water background and its growth strategy.

Siviwe Mbekeni presented an informative session on Occupational Health and Safety, which saw inductees making a commitment to uphold health and safety standards by professing a safety pledge:

PERSONAL SAFETY COMMITMENT PLEDGE

I make a promise today, in front of all my colleagues, and also to my family in their absence that I will always work safely, follow procedure and comply to UN rules and standards to prevent harm to myself and fellow colleagues. This is my promise that all day everyday I will work towards returning home unharmed.





Ronnie Phakathi, the member of Nehawu Executive, addressed the inductees on labour issues and outlined the role of a union in the workplace.

Thereafter, the Human Resource representatives presented key HR-related policies and procedures.

Mxolisi Ngcobo, the Human Resources Planner presented on Human Resource

Administration policies and procedures.

Reuben Dlamini, Employee Relations Manager provided an overview on employee relations, occupational health and employee assistance programmes, with Nothile Hlombe, the Education Training and Development Practitioner, highlighting Talent and Organisational Development value offerings.



The importance of competency and excellence service when executing duties was also emphasised. The inductees were further encouraged to look beyond their scope of work in order to ensure that they participate in growth strategies of the organisation.

Lastly, Zakhele Dube, the talent and OD Manager, thanked Umgeni Water Board and Executives for continued guidance, inductees for their full participation, line managers, project team and organising team for attending this programme.

By Nokuphiwa Mkhize





ACKNOWLEDGEMENT TO THE ORGANISATION

I would like to convey my sincere gratitude to Umgeni Water for such an amazing journey it has been. It all started with a solitary call from Mangosuthu University of Technology on that typical mundane day, telling me that I had been chosen to be among many to be part of the 12 students who had been offered in-service training at Umgeni Water under the MUT Intern Programme.

It has been an honour and privilege to be part of such a prestigious company with amazing staff. But like any journey, there are people who ensure that the journey is a success. I would like to extend my heartfelt and special thanks to the following people, Victor Sibiya, the supervisor of NT Graduate Trainee Programme who organised and led our practice and main presentations, by ensuring that skills such as presentation skills and report writing are cultured. Sibonelo Hadebe, the Superintendent of Durban Heights, who trusted and allowed me the use of all relevant equipment, otherwise it would not have been easy to gain the required practical experience.

With his busy schedule he attended almost all my presentations and has been sincere in his intake. Mbali Sibiya, the Process & Quality Technician, was my supervisor and mentor and, she would go beyond her day-to-day routine to ensure that I obtain necessary practical exposure. To each and every staff member of Durban Heights, it was a pleasure working with each one of you. It has been a fascinating journey including being involved in the Toastmasters programme, paid by UW, and indeed I became the Great Master of Toasts. Thank you, dankie, siyabonga.

By Nokulunga Msane



UMGENI WATER LONG SERVICE AWARDS

Umgeni Water held its first ever intimate Staff Long Service Awards, to acknowledge staff for 20- and 30-year service, in a function that catered for only 50 people on 4 December 2020 at the Durban ICC.

Heeding the President's call on the permissible numbers at gatherings, Umgeni Water had no

choice but abide by the call. The country is facing a second surge of the COVID-19 spread, in certain provinces of the country, hence the Executives took a decision not to hold the Staff Awards function that included the whole staff complement of Umgeni Water, as we usually do this year.

The event was graced by the Chairman of the Board, Mr

Magasela Mzobe, who, in his message of support, praised and thanked all staff of Umgeni Water for their hard work in spite of trying times of COVID-19. He said that the staff of Umgeni Water had worked tirelessly to ensure that the people of KwaZulu-Natal are provided with clean drinking water.

The Chair added that he was proud to be associated with an

organisation such as Umgeni Water, which has dedicated workers and is an organisation that continues to post positive results. Also, the Chairman assured staff that as the Board, they will continue to provide support and guidance, and leave the day-to-day running of the organisation to the executives.

The Chief Executive also delivered her festive message to staff. She



said: "This event is not just a remarkable achievement of long service, it is also a reflection of your commitment and loyalty to our organisation. Thank you for sharing these wonderful years with Umgeni Water, for your full commitment to Umgeni Water.

"It has been said on numerous occasions that the fabric of Umgeni Water is similar to that of a closely-knit family. I am certain that those near and dear to you, the family and friends at home and in the work place, will be equally delighted to share in your achievements.

"With Umgeni Water, you have become family and will remain family even years after retirement.

"In the long period you've spent with our organisation, you would have seen it transform and grow from a small water board to a major entity in the public sector. Today, it occupies a place of pride as a leader in the water sector.

"You have been part of the challenges and victories of the entity over the years, and with resilience have ensured that Umgeni Water always delivered on its mandate. The wealth of knowledge and experience you carry with you cannot be discounted or passed over as we continue to build a global Umgeni Water."







CHRISTMAS MESSAGE FROM ACTING EXECUTIVE OPERATIONS



What a year it has been! We are drawing to a close of not just another year, but an extraordinary one in the history of all our lives. None of our generation has lived through a global pandemic prior March 2020 when Covid19 was declared a global pandemic by the World Health Organization and our own government declared a National State of Disaster.

I would like to take this opportunity to thank our Operations Division team for your hard work and dedication. As a team, you have supplied our customers without disruption through Q4 of FY20 and Q1 of FY21, which is the period starting at the beginning of the pandemic through and beyond the peak.

I applaud our plant operators and

maintenance teams for ensuring an uninterrupted service when it was needed most, even at the peak of the pandemic. Many thanks to all our support divisions who made it possible for us through their critical support. The pandemic has tested our resilience to the limit and we passed with flying colours without even a single loss of life.

I would like to thank you all,

especially the Senior Management and SSHEQ team for your co-operation with our Business Continuity Plans, which have up to now helped protect our frontline workers, the plant operators and maintenance teams.

The pandemic has taught us many lessons. One of them is not only the appreciation of one another, but also the need to protect one



team, you protected one another from the coronavirus. You demonstrated a great spirit of a united family with an acceptance that those who are more vulnerable than others need to be protected by all means.

Even with all challenges presented by the pandemic, we continued with organisational goal of growth and fulfilling the national imperative of ensuring universal access to quality bulk water and sanitation services. At the peak of the pandemic, we started the daunting task of operating in the King Cetshwayo District Municipality.

For those who will be taking leave, may you enjoy a well-deserved break and use the opportunity to relax with your families. As you enjoy the break, reflect on the more than 20 000 lives that have been lost in our country during the Covid-19 pandemic. I encourage all of you as you enjoy the holidays, not to let down your guard as the COVID-19 is still very much

There is no doubt that 2021 will test our ability to achieve what we have always done in the past with less resources as the country and, indeed, the whole world tries to recover from economic devastation caused by the global pandemic.

I, therefore, urge you to take every opportunity to rest so that you can be ready to face the challenges of 2021. May you enjoy your holidays and remember to keep social distance, sanitise and wash your hands with water and soap.

I wish you all good health and to those who celebrate Christmas, I wish you a very happy Christmas and a prosperous New Year!

Ms Monica Malunga

t h a n k y o u

LETTER OF APPRECIATION

The late John F Kennedy once said: "We must find time to stop and thank the people who make a difference in our lives."

Umgeni Water has made a significant difference in my life. Being found deserving to be given a chance to complete the Work Integrated Learning (WIL) programme in order to obtain my National Diploma in Chemical Engineering is the first and foremost hats-off I give to the organisation.

I was stranded and wanting before the organisation took me in and afforded me a training opportunity

of a high standard. Opportunities of growth made themselves available during my training period and all I had to do was to seize those opportunities.

I appreciate you all for this particular achievement added to my profile. The day 30 September 2020 marked the end of my Toastmasters membership with Umgeni Water Durban Toastmasters Club. It gives me great honour to share with you that I managed to complete my Toastmasters journey successfully, although I had already left the organisation and amid the "new normal" of virtual gatherings.

I could not allow myself to start a project and not complete it. With the echoed support from my club, I finished just in time. Toastmasters has prompted and propelled a dynamic leader in me.

I seized the opportunity and joined the Toastmasters Club in October 2019 after the submission of my P2. I would strongly recommend that all Umgeni trainees undergo this journey after the completion of their P1 and P2.

It will enhance the training process greatly, while also giving birth to young professionals who will never

be intimidated to take to the podium whenever the opportunity may arise. I am a much-experienced speaker, now that I've undertaken this path to a better me.

I desire the same for my brothers and sisters who will come after me, because Umgeni Water will always be a home for me.

My utmost gratitude goes to the Management of Umgeni Water at large, for giving every individual an equal chance to be developed and uplifted.

Virtual Hugs.
By Nompilo Chiliza

NEW MIXING TECHNOLOGY EVALUATION



Figure 1: Top-entry mixer

Due to challenges with increasing demand and escalating treatment costs, coupled with deteriorating water quality and limited fresh water resources, the utilisation of new water and wastewater treatment technology solutions within Umgeni Water's operations is considered a vital component in moving the organisation forward during its growth phase.

Umgeni Water strives to be an entity that invests in technology and innovation, and encourages research within the organisation to gain knowledge about new technology and processes that can be implemented to improve efficiencies and increase effectiveness by reducing chemical and operating costs, as well as lowering energy consumption.

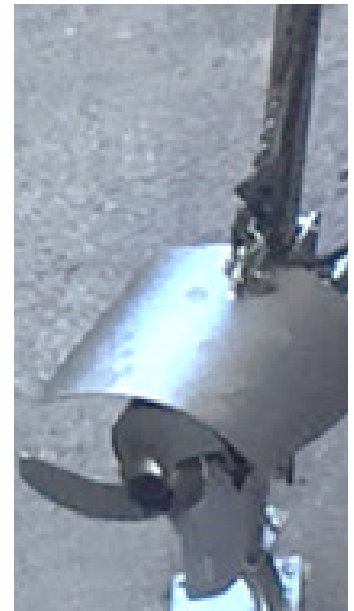


Figure 2: Compact submersible mixer

As such, one of the focus areas was to evaluate technology and processes that optimise energy consumption. Mixing is one of the high-energy consumption operational processes, thus in the bid to reduce energy while maintaining mixing integrity, Process Services evaluated a new low-energy compact submersible mixer technology for sludge tank applications on full scale.

The project evaluated and compared the performance of the new compact submersible mixers to that of existing conventional top-entry mixers at Wiggins Water Works (WW).

The Process Services project leads were Thandeka Maphumulo and Kerisha Nayager, with close

involvement from Wiggins WW Operations and Asset Management representatives. The evaluation considered energy consumption, mixing efficiency, as well as maintenance and operability. Tracer test results, suspended solids profiles and power readings were compared.

The results suggested that the new compact submersible mixing technology would be beneficial to sludge tank applications, provided that the tank geometry and mixer configuration are optimised.

Energy saving is critical to the water and wastewater sector and the submersible mixers utilised 67% less energy than the existing top entry mixers. The compact submersible mixer technology was found to be a promising

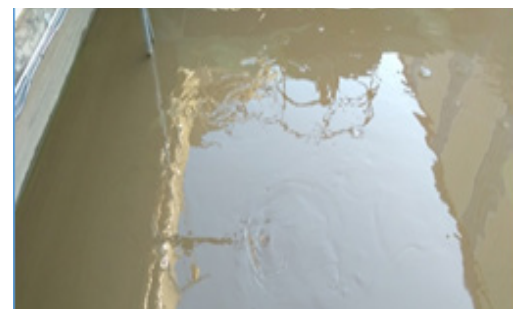


Figure 3: Sludge mixed by new mixer

technology for implementation on suitable processes by Umgeni Water Operations and Asset Management.

Maphumulo and Nayager will present their findings at the WISA 2020 online conference in December 2020 and the knowledge gained from the evaluation project which was also shared with key stakeholders at Umgeni Water

By Thandeka Maphumulo

ACKNOWLEDGING WOMEN IN OPERATIONS

Industries that have been traditionally populated by male workers are making a concerted effort to attract more women into their workforces, but are they going far enough?

The South African labour market is more favourable to men than it is to women, and men are more likely to be in higher paid positions than women.

As we celebrated Women's Month, it is important to celebrate what women have achieved since 9 August 1956, when more than 20 000 women marched to the Union Buildings in protest against the unjust pass laws imposed on women in South Africa. Although women are far better off today, it is important to know if they

are making inroads towards furthering their careers.

In South Africa, women accounted for 43,8% of total employment in the second quarter of 2018. Only 32% of managers in South Africa were women. Women dominated the domestic worker and clerk or technician occupations, with men dominating the rest. Only 3,0% of domestic worker jobs were occupied by men, while 10,9% of craft and related trade jobs were occupied by women (Stats SA).

UW Operations has made great strides in employing experienced and talented women in all spheres of management, operation of water and wastewater works

and maintenance across all disciplines, however there is still more work to be done.

UW Operations employment equity stats shows that women occupy 10%, 31% and 34% of the senior and professional and junior management levels respectively.

The Acting Executive: Operations, Monica Malunga had a dialogue with the Women Managers in Operations and encouraged them to commit to the 2020 Umgeni Water Women's Day Corporate theme, "My Sister's Keeper" and have resolved to focus on the following areas for the next five years:

	Males	Females	% Posts Held by Females
Senior Management	9	1	10%
Professionally qualified and experienced specialists and mid management	56	25	31%
Skilled technical and academically qualified workers, junior management, supervisors, foremen and superintendents	204	104	34%
Semi skilled	184	15	8%
Unskilled	44	42	49%

Employment Equity Stats UW as at 30 June 2020 within Operations Division

We would also like to acknowledge the following male managers in operations, namely Eric Nene, Dan Naidoo, Sunil Maharaj, Peter Thompson, Victor Hlophe, Ntsiki Baai, Nishal Harribarran, the late Khu Zwane and the late Jimmy Lomax for their contributions in developing strong-willed women in the technical fields of water and waste water treatments, by creating opportunities for them to thrive in.

In this issue and future ones, Women in Operations will be featured, highlighting their experiences and promoting females in the working environment. Take time to get to know them. Operations has one female in senior management, with four females in middle management roles (maintenance engineers and systems managers) and five females as junior managers of water and wastewater works. These women have broken the glass ceiling of the once only male-dominated Operations management environment and are making way for more females to follow in their steps.



We feature 2 women TRAILBLAZERS for this issue who are responsible for managing the treatment of waste water at a managerial level and provision of potable water as a process controller of a waterworks.

Yolisa Mkondweni (Superintendent Howick and Mpophomeni WWW)



I am 35 years old. I was born and raised at Port St Johns in the Eastern Cape. I completed my BTech in Chemical engineering at MUT. Short courses I have done include Small Hydropower and Sustainable Development for rural communities at the International Centre on Small Hydropower in Hangzhou, Wastewater Management at The Technical University of Denmark

in Copenhagen, MDP for young professionals with Duke university and SAMTRAC with NOSA.

I am the fourth child raised by a single mom. I could not have asked for another mother, as she has done exceptionally well in raising us. Despite the trials and tribulations that she went through (she always told me that “yilento kuthiwa bu bom ke lobo mntanam”), she remained strong and provided

for us.

I am now married and blessed with two handsome and energetic boys (I feel like I have 10 kids – boys!).

I love sport. I used to be very active. Unfortunately, I now have to listen to my body. I love doing my own gardening. I like herbs and I think one day, I will be a herbalist (you all can come for consultation). It is unfortunate that my state of health requires me to stay away from green veggies.

1. About your family, how do you balance your stresses, work and family life?

I have never seen myself as a superintendent, but life is not always about what you want. It is a challenging 24-hour job where your performance relies mostly on your subordinates and the supporting departments. This position has taught me to understand people and to be patient with them. My team has showed me that we can walk far and achieve great things when we work together.

My other 24-hour job is being a mom and it's difficult to balance things. Setting priorities as a mom and as a plant manager has really helped me manage things the best way I can and I have learnt to pause and focus on my well-being. It helps me to serve others well.

2. What is your experience working in a male-dominated environment?

In many organisations people are getting used to the fact that women are now part of the workforce. Women are proving that they have a lot to offer and are deserving of the positions that they occupying in the industry.

Most people are changing the way they perceive women. In all the organisations that I have

worked for, I have never been mistreated because I am a woman. I have been supported by the women and men that I worked and am still working with.

3. What do you aspire to be one day?

As a young girl who grew up in rural areas, having to fetch water on from nearby water streams, it is a dream come true to be part of Umgeni Water. My heart is always filled with joy whenever Umgeni Water expands; reaching to rural areas because I know what it is like to compete with cows to get water. The worst would be when you found a pig bathing in the water that you were supposed to drink. It is my passion to give back and be part of developing poor communities with what I can offer.

I always wanted to advance my technical expertise and be a specialist in the industry. However, a lot has changed in my life and I am now at the point of re-evaluating my capabilities and map my way.

4. How can UW attract and retain women in Ops?

Provide support to women by developing them and treating women equally with men, there must be no exclusions. For the ladies in opera-

tions, I feel the room isn't so much big, there are very limited positions as we go up.

This means that we really have to develop ourselves, we must not limit ourselves. Let's imagine and think beyond, let's have global thinking, be able to fit and perform anywhere in the world.

5. What is your inspiring message to all women?

Dear, beautiful, bold and strong women, let's work hard to achieve our goals. Let us not have that entitlement mindset, let's show the world that we are capable of more than they can imagine. Let us make a difference wherever we are positioned at the time.

Always remember that it is in small places where we can learn to be great and always perform to the best of your ability and with all that you have. You may never know who is watching.



Nombuso Mkhize (Process Controller Maphetheni WW)



My name is Nombuso Mkhize. I am 35 years old. I was born in a place called KwaNyuswa, in the west of Durban in KZN, and I'm the eldest in the family of four siblings, raised by a single mom. I

am a Christian and a mother of four children. I hold a National Diploma in Chemical Engineering and am currently doing Supply Chain & Operations Management. To destress, I love trying new healthy recipes in my peaceful kitchen .

When outdoors, you will find me jogging on the road. I am a member of the Umgeni Water Athletics Club and I do enter races. I'm a hard-working person. I used to own a spaza shop, which I later gave to my mother and I have other side hustles to make (more) money. Not that my salary, isn't enough.

I just want to prove that poverty is a state of mind. I have worked for Umgeni Water as a Process

Controller; this is my ninth year now. I love my job. I believe it is also part of my purpose in life. Water is life and by distributing clean water, we change people's lives.

I matriculated in 2003 and went to Berea Technical College to do Chemical Engineering. Unfortunately, I could not register in time because of registration fee issues. I ended up doing Electrical Engineering N2, N3 and N4. Later, I had to quit because of not affording fees. In September 2004, I went to look for a job.

I was paid R50 a day and also did people's hair to prepare myself to go back to school. Besides that job, I used to cook amagwinya (fat

cakes) and my mother would sell them at the firm she was working at.

I went to Mangosuthu University of Technology in 2005 and finally got selected to do Chemical Engineering, something I was passionate about. Life was not easy at tertiary level. I finished in 2007 and got married. I was 21 years and everything was happening so fast, but I couldn't stop or pause. Between 2008 and 2011, I had two daughters, a year's experience from Frimax Foods as a quality technician.

I could not use that experience to graduate as I had no mentor. I was hired at Umgeni Water in September 2011 after a friend had

applied for me as I had no access to the internet. May her soul rest in peace. I had another daughter in 2012, followed by a son in 2015, unfortunately my marriage ended. I appreciate my Superintendent, Lorato Oliphant, for all the knowledge he imparted and the support he gave me while I was training, especially when I was a new employee with no experience and so much going on in her life. I graduated in 2013 with my National Diploma in Chemical Engineering, with the help of Sibongiseni Mkhize as my mentor.

2. About your family, how do you balance your stresses, work and family life?

Being a mother of four, working shifts and studying at the same time is not easy, but if you know it is your responsibility and no one can do it better than you, it becomes bearable. I am a full-time mom, meaning I sometimes cook extra meals for freezing, clean, help with homework and dress them to school. When I am off from work, I also drive them to school and take them for extra-mural activities. I manage with God's help and because we do most things as a team.

The best time to study is midnight. As they grow older, they now understand that I need time to study. I went back to the university in 2018 to do a BTech in Chemical Engineering. I only managed to pass three mod-

ules out of 10. I guess it was not good timing and being a full-time student did not work for me, as my son was three years old and I had to attend classes during the day. I plan to finish my Degree in SCM and later go back to finish my Degree in Chemical Engineering.

3. What is your experience working in a male-dominated environment?

Working in a male-dominated environment is not easy, but as a person who likes to learn and a good listener, I believe that has worked for me to ease all challenges I have faced. My experience is that ideas from women are not easily heard and implemented. They are only taken as a last resort. When you have a view, you must have a technique of stating it and making yourself heard.

I aspire to be a woman who will be known for her work ethic, her personality, a great mother and a successful businesswoman. I want to be known as a woman who gives hope and encourages other women to never give up on their dreams and not let anything hold them back from what they believe in. I want to inspire the nation, not with good words, but let good deeds do the talking for me.

4. How can UW attract and retain women in Ops?

UW can attract and retain women in Operations Department by

having a better understanding of the barriers that limit women from participating or staying longer in the department. As for me, I am studying SCM because I feel that the organisation is still structured and functions in ways that do not support women's career paths and their need to integrate work with family responsibilities. A culture of inclusiveness and diversity must be created because as women, we feel that we are often dismissed or ignored.

Creating an organisational environment that values diversity, not just for the sake of appearance but a competitive edge that comes with access to multiple perspectives is important. Re-examine and update policies to check that it does meet everyone's needs, especially women's.

5. What is your inspiring message to all women?

My message to women is to know that success is not waiting, but you have to create your own opportunities. Don't be afraid to try and fail. Failing gives you a chance to do better. Once you have a better understanding, you will do better.

Accept being unique and accept that your life may not be according to the norms of others. Get educated, work hard, love yourself and make money!

By Nazley Govender



“BIG DATA” ASPECT OF PROJECT 2019/070 - VERSION 1.1

In light of the IIOT (the Industrial Internet of Things), the project manager included: “BIG DATA” as part of the control system upgrade. This is also in line with the recent memo from our former Chief Executive, Mr Thami Hlongwa, highlighting the need for Umgeni Water to embrace the “digital age” and Big Data” as a means of further informing business decisions throughout the organisation.

Hence, as part of the “Big Data” aspect for this project, dedicated data servers were installed at key locations to collect and store process data from the respective water treatment works in the North being

Hazelmere WTW, Maphumulo WTW and the Lower Tugela Bulk Water Supply Scheme. This was achieved with close collaboration with the Umgeni ICT Department to ensure that standards and software protocols were adhered to.

A typical control system comprises the following three components, namely SCADA (Supervisory Control And Data Acquisition) system, PLC (Programmable Logical Controller) system and Radio Telemetry systems to link the remote sites to the respective treatment works located in the northern area. Process data (levels, flows,

chemical usage, pressures, vibrations, etc) from field devices are then fed into the control system for monitoring and control of such infrastructure. At present, this data is being monitored and stored on the SCADA system and this is not the ideal scenario, based on international best practice. It was established that the SCADA should be the window into different process units and process data should be stored on a separate server for further analysis.

Rockwell Automation was awarded the tender, via Umgeni Water Supply Chain Policies in 2019. The project manager for



Umgeni Water engaged the relevant operations managers to design and develop the dashboards required for the “Big Data” aspect of the above project. The requirement from operations was that process data must be available remotely and securely to all senior managers and decision makers.

Furthermore, it was also requested for this data to be routed to business systems such as SAP.

After much collaboration with Rockwell Automation engineers, operations managers and Asset Management staff, suitable dashboards were designed, developed and approved for implementation using the solution provided by Rockwell

Automation aptly named, Vantage Point Data Historian. Essentially, these dashboards are available via Internet Explorer with a preconfigured username and password.

Detailed examples of the dashboards are described below. The real value for this project is the ability to access and effectively analyse process data from a centrally located data server, which is a first for Umgeni Water.

Furthermore, this data can be configured to feed into business systems to drive business decisions and further enhance business process units. Data can be stored for a number of years, as the data servers have sufficient storage capacity built into the hardware. Operations management are able to

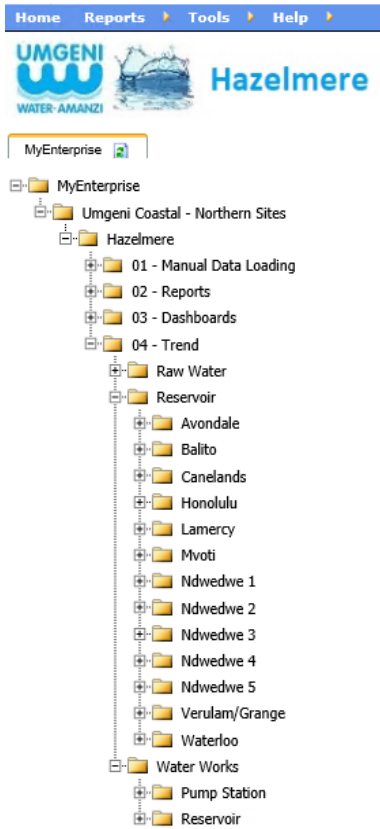
export process data for critical reports and strategy-planning initiatives.

1.1. How to open Vantage Point Historian

Open Internet Explorer and type in the IP address of the data server or NETBIOS name and hit enter. It will automatically direct you to Vantage Point Historian, prompting you to log in with your domain credentials as previously configured.

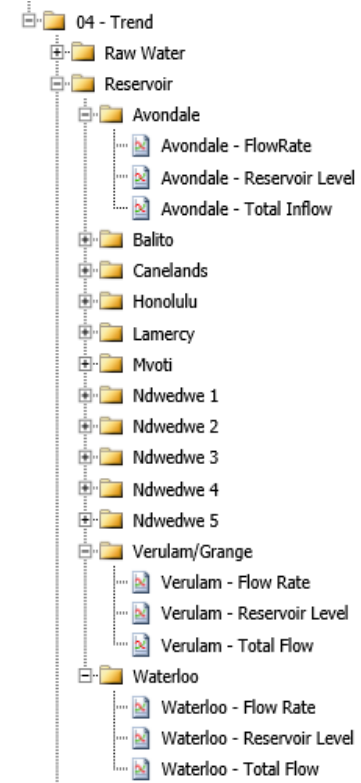
1.2. Main Tree Structure

Tree structure shown below is what operations managers will see when they log into the portal on the data server. The tree was designed to allow users to further drill down into the different process units by merely clicking and expanding the tree as required.



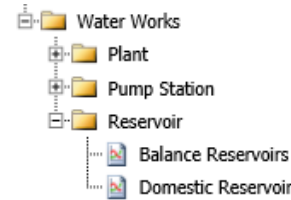
1.3. Field Reservoirs Path: 04-Trend\Reservoir

1.3.1. Field Reservoir Level



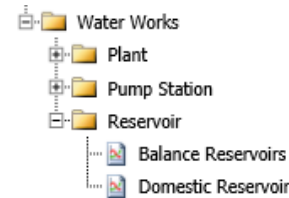
1.3.2. Local Reservoir Levels

Path: 04-Trend\Water Works\Reservoir



1.3.3. Flows

Path: 04-Trend\Water Works\Pump Station

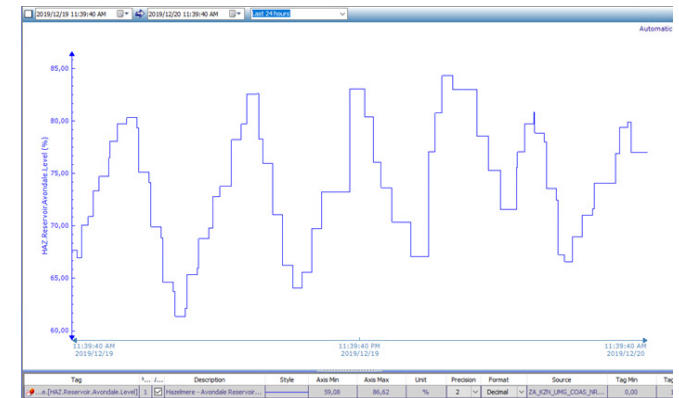


2. Reservoir Level

All reservoir levels can be found in the tree structure. See some example below.

2.1. Avondale

2.1.1. Reservoir Level

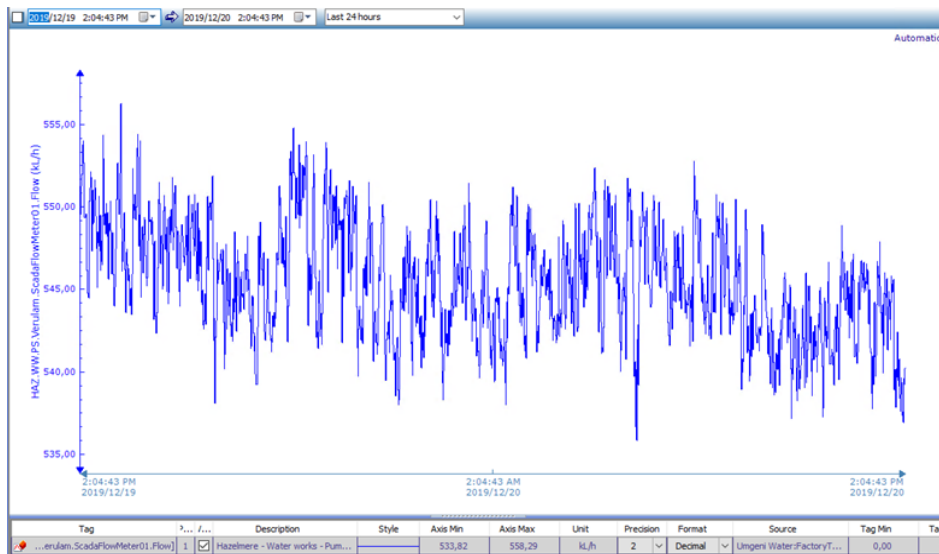


2.2. Verulam

2.2.1. Reservoir Level



2.2.2. Flow Rate



3. User Access

3.1. Hazermere Users

The following users have been configured to access the Hazelmere Vantage Point Historian:

Operational Staff	Designation	Member of Domain	Name	Email	Access
1.	Area Manager North	UW	Pravesh Boodhoo	pravesh.boodhoo@umgeni.co.za	Granted
2.	Systems Manager North	UW	Ashok Mahabeer	ashok.mahabeer@umgeni.co.za	Access requested.
3.	Process & Quality - Hazelmere	UW	Thobekile Sibaya	thobekile.sibaya@umgeni.co.za	Granted
4.	Process Control Technician	UW	Adesh Maharaj	Adesh.Maharaj@umgeni.co.za	Granted
5.	E & I Engineer	UW	Tumi Nhlonzi	Tumi.Nhlonzi@umgeni.co.za	Access requested.

4. Overview of Hazelmere WTW Dashboard

4.1 Function F1.0 HAZ Overview Dashboard Layout.

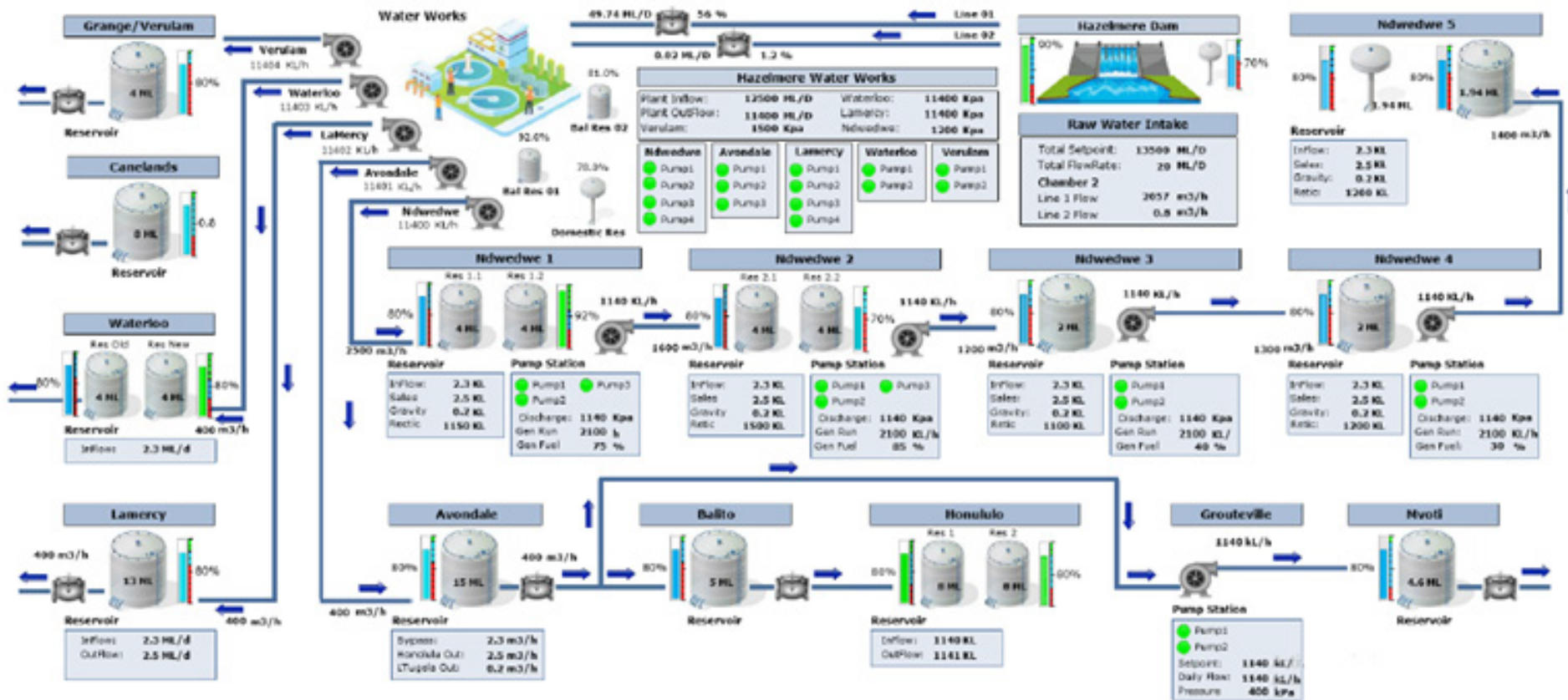
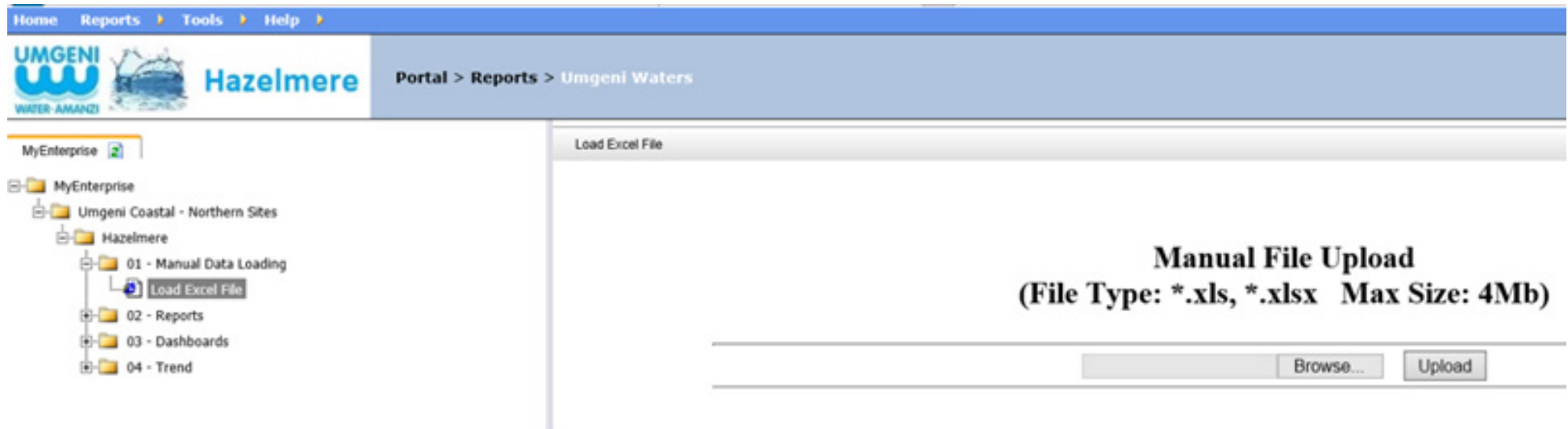


Figure 2: HAZ Overview Dashboard

5. Manual Uploading of daily logs

The system was specifically designed to allow operators to upload daily logs. These are logs that operators capture from field devices at the start of every shift. This way the manual logs can now be archived and analysed in the data server.



Project Description: Northern Area Control System Upgrade; **Project Tender No.:** 2019/070; **SAP ID:** CI: 00387, **Project Sponsor:** Area Manager – North, **Project Manager:** Adesh Maharaj

FIVE WORST INVASIVE PLANTS IN SOUTH AFRICA

1. Pompom weed (*Campuloclinium macrocephalum*) – Category 1b

Pompom weed was introduced to South Africa in horse feed (hay) during the Anglo Boer War (1899) that was imported from Brazil and Argentina.

The plant is a serious threat to the conservation of grasslands in South Africa. This invader causes serious degradation of the veld, lowering the biodiversity and reducing the grazing capacity by being unpalatable to large herbivores.

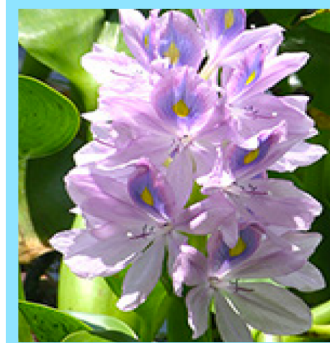
Infestations become conspicuous when the plants are in flower between December and March, transforming the veld from green to pink.



2. Water hyacinth (*Eichhornia crassipes*) – Category 1b

Water hyacinth is one of the world's worst aquatic weed due to its invasive potential, negative impact on aquatic ecosystems, and the high rate of costs to control it.

This invader forms dense mats which completely cover the water surface of dams leading to altered water chemistry and composition to the detriment of other organisms. Negative effects associated with water hyacinth infestation include the destruction of local aquatic biodiversity, the blockade of river flows which may aggravate flooding and interference with water utilization for activities like recreation or irrigation.



3. Famine weed (*Parthenium hysterophorus*) – Category 1b



This aggressive plant rapidly invades disturbed areas, agricultural land used for crop and animal production, fallow land, roadsides and watercourses, causing severe economic losses and threatening biodiversity. The plant is a known irritant – continuous exposure causes respiratory problems such as hayfever and asthma in humans, as well as allergic contact dermatitis. Cattle that have consumed famine weed are not fit for human consumption and their milk may become toxic.

4. Lantana (*Lantana camara*) – Category 1b

Lantana camara is a poisonous invader of veld and plantations. It replaces indigenous species. Allelopathic suppression of indigenous species interrupts regeneration processes and reduces biodiversity of natural ecosystems. Dense stands in plantations obstruct access and utilization. This plant is poisonous to humans and animals and responsible for livestock mortalities amounting to millions of Rands every year in South Africa. It also reduces the grazing potential of the land.



5. Bugweed (*Solanum mauritianum*) – Category 1b



Bugweed replaces indigenous riverine and forest margin species. This invader also competes with young trees in plantations, particularly pines and black wattle, inhibiting growth and causing stem deformation. It is a host of the KwaZulu-Natal fruit fly which is

an economic pest. It has no fodder value and the plants are generally avoided by grazing animals. The unripe fruits are poisonous and the hairy leaves and stems can cause allergic dermatitis and asthma.



CLASSIFIED

NEW APPOINTMENTS

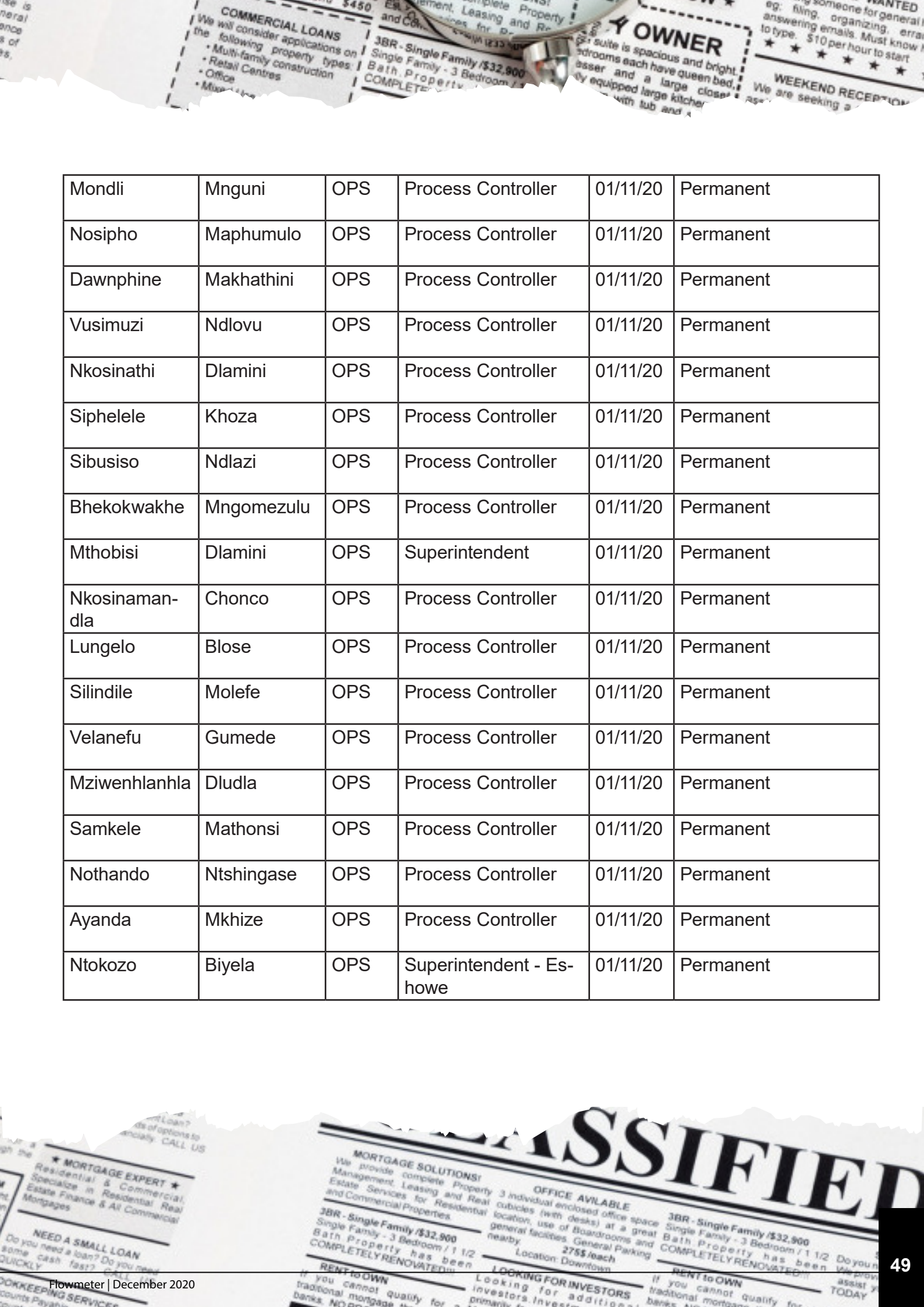
To all staff who joined the Umgeni Water family between 1 June and 30 November 2020, the Board, Executives and staff would like to congratulate you and wish you a wonderful stay with us. A warm welcome!

NAME	Surname	Division	Position Name	Technical Date	Contract Type name
Nompilo	Mbentse	OPS	Ops Servitude & GIS Co-ordinator	01/06/20	Fixed-term contract
Pretty	Gumede	OPS	Contract Administrator	15/06/20	Fixed contract
Ayanda	Dube	OPS	Contract Administrator	07/09/20	Fixed-term contract
Lindokuhle	Maphumulo	OPS	Contract Administrator	01/08/20	Fixed contract
Khanyisani	Cele	OPS	Contract Shift Attendant	01/08/20	Fixed contract
Bhekumuzi	Mbambo	ID	Project leader	01/11/20	Fixed term
Jabulisawe	Zulu	OPS	Process Controller Contract	01/11/20	Fixed-term controller
Nompumelelo	Khuzwayo	OPS	Process Contractor	01/11/20	Fixed-term contract
Celimpilo	Mbambo	OPS	Shift Attendant	01/10/20	Fixed term
Sifiso	Bhengu	OPS	Process Controller	01//20	Fixed-term contract
Melusi	Khanyile	OPS	Process Controller	01/11/20	Fixed-term contract
Bhekithemba	Majola	OPS	Process Controller	01/11/20	Fixed-term contract
Sibonelo	Mchunu	OPS	Shift Attendant	01/11/20	Fixed-term contract
Sithembiso	Mhlongo	OPS	Process Controller	01/11/20	Fixed-term contract
Nokwanda	Khanyile	OPS	Shift Attendant	01/11/20	Fixed-term contract
Nonjebo	Shezi	OPS	Shift Attendant	01/11/20	Fixed-term contract
Siphesihle	Mthembu	OPS	Process Controller	01/11/20	Fixed-term contract
Vumile	Biyela	OPS	Process Controller	01/11/20	Fixed term contract
Ntuthuko	Gumbi	OPS	Process Controller	01/11/20	Fixed-term contract

Thulisiwe	Sikhakhane	OPS	Process Controller	01/11/20	Fixed-term contract
Zakhona	Shezi	OPS	Process Controller	01/11/20	Fixed-term contract
Dumisani	Mhlongo	OPS	Process Controller	01/11/20	Fixed-term contract
Nokukhanya	Ngomane	OPS	Process Controller	01/11/20	Fixed-term contract
Siboniso	Thabethe	OPS	Process Controller	01/11/20	Fixed-term contract
Bongani	Msomi	OPS	Process Controller	01/11/20	Fixed-term contractor
Melusi	Dlamini	OPS	Process Controller	01/11/20	Fixed-term controller
Thembinkosi	Ndlovu	OPS	Process Controller	01/11/20	Fixed-term contract
Simo	Khumalo	OPS	Process Controller	01/11/20	Fixed-term contract
Getrude	Sondezi	OPS	Process Controller	01/11/20	Fixed-term contract
Bhekumusa	Dladla	OPS	Process Controller	01/11/20	Fixed-term contract
Ntombikhona	Mthethwa	OPS	Process Controller	01/11/20	Fixed-term contract
Simpfiwe	Mthembu	OPS	Process Controller	01/11/20	Fixed-term controller
Malibongwe	Mkhize	OPS	Process Controller	01/11/20	Fixed-term contract
Xolile	Nsele	OPS	Process Controller	01/11/20	Fixed-term controller
Sibani	Masoka	OPS	Process Controller	01/11/20	Fixed-term controller
Nombulelo	Gamede	OPS	Process Controller	01/11/20	Fixed-term contract
Zanele	Nzuzza	OPS	Process Controller	01/11/20	Fixed-term contract
Thobeka	Nyawo	OPS	Process Controller	01/11/20	Fixed-term contract
Bongumusa	Mhlongo	OPS	Process Controller	01/11/20	Fixed contract
Lerato	Moahlodi	OPS	Process Controller	01/11.20	Fixed-term contract
Melusi	Danisa	OPS	Process Controller	01/11/20	Fixed-term contract
Phumeleni	Zulu	OPS	Process Controller	01/11/20	Fixed-term contract
Bonisiwe	Mhlongo	OPS	Process Controller	01/11/20	Fixed contract
Sanele	Ndaba	OPS	Process Controller	01/11.20	Fixed-term contract
Andile	Luthuli	ID	Manager Project Office	01/01/20	Permanent

Hazel	Sibuyi	Execu- tive	Co-ordinator Office Administrator	01/09/20	Permanent
Xolani	Ndlovu	OPS	Handyman	01/09/20	Permanent
Mcebisi	Mngoma	Fi- nance	Administrator - cred- itors	01/10/20	Permanent
Cyril	Ntombela	OPS	Process Controller	01/11/20	Permanent
Andreas	Zulu	OPS	Process Controller	01/11/20	Permanent
Themba	Nzuzza	OPS	Process Controller	01/11/20	Permanent
Bhekisisa	Xulu	OPS	Process Controller	01/11/20	Permanent
Gloria	Mhlongo	OPS	Process Controller	01/11/20	Permanent
Sikhumbuzo	Dunge	OPS	Process Controller	01/11/20	Permanent

Mondli	Mnguni	OPS	Process Controller	01/11/20	Permanent
Nosipho	Maphumulo	OPS	Process Controller	01/11/20	Permanent
Dawnphine	Makhathini	OPS	Process Controller	01/11/20	Permanent
Vusimuzi	Ndlovu	OPS	Process Controller	01/11/20	Permanent
Nkosinathi	Dlamini	OPS	Process Controller	01/11/20	Permanent
Siphelele	Khoza	OPS	Process Controller	01/11/20	Permanent
Sibusiso	Ndlazi	OPS	Process Controller	01/11/20	Permanent
Bhekokwakhe	Mngomezulu	OPS	Process Controller	01/11/20	Permanent
Mthobisi	Dlamini	OPS	Superintendent	01/11/20	Permanent
Nkosinamandla	Chonco	OPS	Process Controller	01/11/20	Permanent
Lungelo	Blose	OPS	Process Controller	01/11/20	Permanent
Silindile	Molefe	OPS	Process Controller	01/11/20	Permanent
Velanefu	Gumede	OPS	Process Controller	01/11/20	Permanent
Mziwenhlanhla	Dludla	OPS	Process Controller	01/11/20	Permanent
Samkele	Mathonsi	OPS	Process Controller	01/11/20	Permanent
Nothando	Ntshingase	OPS	Process Controller	01/11/20	Permanent
Ayanda	Mkhize	OPS	Process Controller	01/11/20	Permanent
Ntokozo	Biyela	OPS	Superintendent - Es-howe	01/11/20	Permanent



Sinonga	Mhlongo	OPS	Process Controller	01/11/20	Permanent
Nsamba	Mkhize	OPS	Process Controller	01/11/20	Permanent
Nkosingiphile	Mdletshe	OPS	Superintendent Gingindlovu Area	01/11/20	Permanent
Thandiwe	Mtethwa	OPS	Process Controller	01/11/20	Permanent
Sfiso	Linda	OPS	Process Controller	01/11/20	Permanent
Jabulile	Ndlovu	OPS	Process Controller	01/11/20	Permanent
Thabile	Ntanzi	OPS	Process Controller	01/11/20	Permanent
Sfiso	Mkhize	OPS	Process Controller	01/11/20	Permanent
Nonhlahla	Mthimkhulu	OPS	Process Controller	01/11/20	Permanent
Slindile	Khanyile	OPS	Process Controller	01/11/20	Permanent
Londiwe	Ntobongwane	CS	Intern Board Secretariats Office - Trainee	01/10/20	Trainee
Celo	Madonda	CS	Intern Board Secretariat Office	05/10/20	Trainee
Wandile	Khawula	CS	Intern – Internal Audit	01/10/20	Trainee
Lindiwe	Nkabane	SS	Graduate Trainee Catchment Management	01/10/20	Trainee

STAFF TERMINATIONS

To all the staff who left between 1 June and 30 November 2020, the Board and Executives of Umgeni Water wish you well in your endeavours.

Name	Surname	Division	Unit Name	Position	Termination date	Reason for termination
Sibonelo	Makhaye	CS	Talent & OD	Intern	01/06/20	Contract Expired
Sbahle	Sibiya	CS	Talent & OD	Trainee	04/06/20	Contract expired
Sbahle	Msomi	CS	Talent & OD	Trainee	01 /06/20	Contract Expired
Ncamisile	Bhengu	OPS	Durban Heights WW	Cleaner	30/06/20	Contract Expired
Esther	Mwandla	OPS	Durban Heights WW	Cleaner	01/07/20	Contract Expired
Sindi	Dlamini	OPS	Talent & OD	Cleaner	01/01/20	Contract Expired
Nontobeko	Ncwane	OPS	Ixopo WWW	Cleaner	01/07/20	Contract Expired
Bongiwe	Hlongwa	OPS	Ulwandle Regional Office	Cleaner	01/07/20	Contract Expired
Zanele	Phungula	OPS	Ixopo WW	Cleaner	01/07/20	Contract Expired
Ntombenhle	Mdletshe	OPS	Ulwandle Regional Office	Cleaner	01/07/20	Contract Expired
Sihle	Ndlovu	OPS	Ulwandle Regional Office	Cleaner	01/07/20	Contract Expired
Mthokozisi	Buthelezi	OPS	Durban Heights WW	Cleaner	01/07/20	Contract Expired
Nokusa	Pelako	OPS	Ulwandle Regional Office	Cleaner	01/07/20	Contract Expired
Bonginkosi	Mnganga	OPS	Ulwandle Regional Office	Cleaner	01/07/20	Contract Expired
Khanyisile	Dlamini	OPS	Ulwandle Regional Office	Cleaner	01/07/20	Contract Expired
Nolwazi	Dakamnyama	OPS	Ulwandle Regional Office	Cleaner	01/07/20	Contract Expired
Xolelwa	Sikade	OPS	Hazelmere WW	Cleaner	01/07/20	Contract Expired

Ntombizodwa	Dladla	OPS	Ulwandle Regional Management	Cleaner	01/07/20	Contract Expired
Mbali	Mthembu	OPS	Talent & OD	Cleaner	01/07/20	Contract Expired
Nokubonga	Mbhele	OPS	Hazelmere WW	Cleaner	01/07/20	Contract Expired
Ralebohile	Ntoa	OPS	Ulwandle Regional Management	Cleaner	01/07/20	Contract Expired
Princess	Shelembe	OPS	Durban Heights WW	Cleaner	01/07/20	Contract Expired
Hlengiwe	Mahlobo	OPS	Lower Tugela WW	Cleaner	01/07/20	Contract expired
Nomusa	Ngidi	OPS	Amanzimtoti WW	Cleaner	01/07/20	Contract Expired
Thobani	Khuzwayo	OPS	Durban Heights WW	General Worker	01/07/20	Contract Expired
Ntombikhona	Ntuli	OPS	Wiggins WW	Cleaner	01/07/20	Contract Expired
Ntombifikile	Lushaba	OPS	Umzinto WW	General Worker	01/07/20	Contract Expired
Buyisiwe	Mpisane	OPS	uMthwalume WW	General Worker	01/07/20	Contract Expired
Thobile	Khuzwayo	OPS	South (Civil/Mrch) Workshop	General Worker	01/07/20	Contract Expired
Nompilo	Mlambi	OPS	Durban Heights WW	General Worker	01/07/20	Contract Expired
Truelove	Ndlovu	SS	Process Services	General Worker	01/07/20	Contract Expired
Nelisiwe	Dlamini	OPS	Ilembe (Civil/Mec) Workshop	General Worker	01/07/20	Contract Expired
Sandisile	Bhengu	OPS	Maphumulo WW	General Worker	01/07/20	Contract Expired
Nkanyiso	Ndlovu	OPS	Wiggins WW	General Worker	01/07/20	Contract Expired
Sifiso	Maphumulo	OPS	Wiggins WW	General Worker	01/07/20	Contract Expired
Silindile	Khanyile	OPS	Appelsboch WWW	General Worker	01/07/20	Contract Expired



Noluthando	Mthembu	OPS	Mearns Pump Station	Shift Attendant	01/07/20	Contract Expired
Khanyisile	Dumakude	Finance	Creditors Trade	Administrator	01/09/20	Contract Expired
Mthokozisi	Buthelezi	ID	Design Office	Draughtsperson	01/10/20	Contract Expired
Khombisile	Bhengu	OPS	Richmond WW	General Worker	01/10/20	Contract Expired
Anele	Mthethwa	OPS	Electrical Engineering	Clerk	01/10/20	Contract Expired
Timmol	Jagarnath	OPS	Nagle Durban Heights Works	Artisan	01/06/20	Disability
Pretty	Dladla	OPS	Richmond WWW	Operator	29/07/20	Disability
Praisewell	Sangweni	OPS	Nagle Durban Heights Works	Maintenance Assistant	26/09/20	Dismissal
Thokozani	Ndimba	SS	Sampling Services	Officer	01/10/20	Dismissal
Sikhumbuzo	Cele	OPS	Asset Management	Administrator	01/06/20	Resignation
Ntokozo	Chiliza	CS	Talent & OD	Trainee	01/06/20	Resignation
Cyncol	Sibiya	CS	National Treasury	Graduate	01/10/20	Resignation
Zain	Moosa	ID	Coast Estimator Office	Cost Estimator	01/11/20	Resignation
Stephen	Burke	ID	Design Office 1	Engineer	01/10/20	Retirement



DEATHS

Staff who passed between 1 June and 30 November 2020

To all colleagues, friends and families of our beloved staff members who passed away, our sincere condolences. May their souls rest in everlasting peace.

Name	Surname	Division	Unit Name	Position	Termination date	Reason for termination
Innocent	Mbanjwa	SS	Water & Environment	Officer	07/06/20	Deceased
Mhlabunzima	Xaba	OPS	Tugela Estate WW	General Worker	07/09/20	Deceased



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